1. **Philosophical, Psychological and Social Framework**

Education-or the ability to know-is essential for all humankind to live life well. Education is not the beginning or ending of one’s knowledge, but is a lifelong process. It is through knowledge, that individuals become lifelong learners and problem-solvers. Wisdom –the highest level of learning-means a lifetime of exposure, experience, and inquiry about one’s environment.

The quality of society is correlated to the quality of education he/she receives. If the education is founded on principles and expectations, then the individuals will aspire to such heights and beyond. If, however, the education is mediocre or falling below standard, the individuals will aspire to nothing more than what has been previously obtained. It is important through early education that students are taught based on current and successful methodology and scientific practices of learning. By this I do not mean for one to memorize how one learns, or recite a specific philosopher. Instead, I believe that all students should learn how to think for themselves, and not how to mimic others. It is the role of the educator to inspire individuals to become thinking citizens who exhibit imagination, independence, knowledge, understanding, compassion, and tolerance. Education is the glue that provides humankind with the understanding of interconnectedness. For education to be successful, discovery, exploration, and questioning must be pertinent factors.

As an educator, I believe we must empower the students today. One should instill the confidence, knowledge, and support that he/she needs. It is important for the child to learn material, but superior learning is knowledge acquired through exploration of one’s own mind and heart. In order for everyone to be successful, education should base its content on the “holistic approach” to learning. This entails addressing the needs of the student in various ways, such as cognitively, intellectually, emotionally, spiritually, physically, socially, and aesthetically. It is essential to educate the mind, body, and soul in order to live a life filled with personal success.

Who a person becomes is related to the value of his/her education. I believe that every student has the capability of learning and succeeding in countless environments. It is the role of the teacher and the learner to see how each one is an integral part of the other. With the priority set on what is called “discovery learning” (drawing one’s own conclusions from his/her own experiences and to develop ideas for him/herself), we as a nation can create individuals who possess the ability to be lifelong learners and contributors of a “society that ought to be, rather than a society that is.” The aim of education is not to teach students how to earn a living, but preparing one to live a life filled with endless possibilities.

As Benjamin Disraeli once said, “A university should be a place of light, of liberty, and of learning.” Similarly, education is the key to unlocking the knowledge and wisdom of his/her environment, but most importantly, unlocking the knowledge of oneself. School and education, in itself, is the stage where this lifelong process unfolds.

1. **Community Resources**

The classroom should be a place as “wide as the world” and is evident in the implementation of this curriculum. No longer will education be solely distributed by and through the teacher, but is a collaborative effort done by a myriad of individuals. These individuals include, but are not limited to the following: parent, teacher, counselor, administrator, peer, community officer, business owners, internet, social media, global market, and many others. It is no longer acceptable to assume that any one person has the qualifications, experiences, and exposures that will provide a breadth of learning for all students, therefore, making the concept of “community” more important than ever.

Even though the content of this curriculum may mirror others in the past, the learning is quite different. Students will not be given paper and pencils in order to accomplish any task nor will they be given a multiple choice test in which the answers are either a, b, c, or d. On the contrary, students will be challenged to produce products that reiterate key scientific concepts and cannot be answered by google. In other words, students need to create, think, problem-solve, and unravel the answers one layer at a time. In fact, students will be challenged every step of the way to look from various perspectives prior to formulating an answer. In doing this, students need to become active participants in their learning and take the hands-on approach in receiving a superior education. In order to do this, students will be learning in the 21st century through the use of videos, virtual labs, videoconferencing, skyping, creating e-portfolios, flipped classroom, e-gaming, blogging, using student response systems to check for understanding, and a wide range of other useful 21st learning opportunities. Students will be the center while the “teacher” will be the facilitator assisting and questioning higher-order thinking skills in order to properly challenge each individual child.

As one may assume that this curriculum needs a scope or sequence, I beg to differ. This curriculum is not developed based on the age of the child, but rather on his/her ability and there is no deadline for the mastery of this information. In simple terms, some may finish in one month while others may take five or more. This curriculum is customized to meet the individual student and assess accordingly; therefore, students work at their own pace, yet cannot move on until mastery has been achieved. Showing up to class is no longer an option, but rather a must. These rich conversations such as a videoconferencing with a heart surgeon or a skype lecture with a world renowned scientist will provide a great foundation to see science and/or education at a new level – a level where all students have the same opportunities despite financial, social, and local community deficits.

Curriculum 21 best depicts the key part of this curriculum as well as where school should lead students when they say, “ Teach the students to find the right problem and then solve.” This quote demonstrates a different perspective on education, yet challenges students to think differently and be the next architect or perhaps the next famous scientist finding the answer to an impossible question. In summary, there is nothing more important than community in a classroom, but community is seen at an in-depth level for it involves global connectivism.

1. **Predictions of challenges**

This curriculum has many personal challenges because it does not conform to what we are familiar with nor does it mirror any state curriculum of New Jersey. This curriculum is to provide students with the greatest opportunity to be contributing and successful members of society while learning in an effective and efficient manner for the 21st century. Celebrating Cells provides the framework that reiterates the essence of technology and integrates scientific principles. As a result, the use of technology poses the greatest challenge set before the teacher, school district, and child. The implementation of such a curriculum does not use technology as a medium to place all assignments in a word document, but rather, uses technology to enhance learning and provide a solid basis of transference of knowledge. Students will not be making flashcards and studying vocabulary terms, but will take the knowledge of the information and display it in a wide variety of ways. Because of this, teachers need to provide technological support for the student, parent, and school district. Being different is always good; however, it also brings greater challenges as seen in this curriculum. Teachers need to demonstrate proper technology etiquette (perhaps even change school policy), and trouble shoot if technology is not working. Another potential issue lies in the technology itself. Does the school allow you to access these sites or blogs and does the student have access at home to do a flipped classroom? In addition, the teacher himself/herself needs to know the content, the technology, and the ability to infuse them together. This may be easy, however, the planning required is intricate and complex and far exceeds the time one has during a traditional school setting. In all, developing a 21st century curriculum may seem cumbersome, overwhelming, and tedious; however, the overall results will be immeasurable because the learning outcomes of students will be exponential.

1. **Reflection of Lessons**

The lessons I learned regarding curriculum will greatly impact when I become an administrator. In my district, writing entails the supervisor selecting one or two people to rewrite curriculum in two days. The teacher is removed from his/her classes and spends a small duration “copying and pasting” from an old template to new one. There are no ideas of innovation or creativity, but rather serves as another obligation placed upon us as a school district and/or classroom teacher. The curriculum is barely used and depending on the teacher may not even be demonstrated in one’s classroom. As a result, one of the greatest lessons I have learned from this course is to provide a community basis of curriculum writing and make it an on-going process. If one does not value the importance of the curriculum then neither can he/she value the importance of educational objectives/concepts. The curriculum should serve as the “bible” of education and not as a tedious task one needs to complete. One way in which I would change this is to provide each teacher in the department a section of the curriculum which incorporates research, exploration, and discussion in order to develop a curriculum that has rigor and relevance while also reiterating modern methodologies.

Another lesson I learned is the importance to stay “fresh” with curriculum. In other words, there are many curriculum books that discuss the proper way to write curriculum; however, things are always changing, therefore, it is important to be up-to-date as well. Reading Curriculum 21 from Heidi Hayes Jacobs was vital to my education and provides a greater depth of knowledge relating to technology, curriculum, and the way in which we need to restructure our classroom environment in order to be successful on a global perspective. This book has provided me with a wealth of knowledge and examples in which I need to revamp what I do whether or not there is support from the administration. It is important to educate our students for the 21st century and employ practices that do not create a disconnect between teacher and student. In summary, this book explored many effective and valuable tools and has given me the best advice in education: “new form, not reform.”

Lastly, writing curriculum always seemed very static and dull, but through this experience I was able to see the writing at a different level. Doing research, exploring the internet, reading various texts, collaborating with colleagues, and a plethora of others has enabled me to see the excitement in writing curriculum. The journey of exploration for “Celebrating Cells” has been exciting and has sparked great interest amongst colleagues. In fact, it has also enabled me to take greater risks including writing this paper. I can assume many students presented this final culmination in binders or folders, but being in the 21st century also means echoing those same principles as a teacher. In other words, doing a wiki or google site may not be popular for this assignment, but is a must. We need to imitate what we want our students to achieve, therefore we must be the first one to take the chance. In summary, I have learned taking the chance in writing a different curriculum has also enabled me to acquire, innovate, and create ways to implement in the classroom.

In summary, I have learned that writing a curriculum is similar to writing lesson plans – they are important to have, but always need to be tweaked on a daily basis in order to have a customized education where all students achieve excellence. Creating this curriculm is not the end, but the beginning of a new class that I teach. I can no longer make excuses for why my students may not achieve success because now they are in the forefront of the class being active and participatory thanks to the aid of technological advancements.